

**POLICE DEPARTMENT  
CITY OF NEW YORK**

January 18, 2023

From: Commanding Officer, Technical Assistance Response Unit

To: Chief of Information Technology Bureau

Subject: **DOITT CONTRACT PURCHASE REQUEST**


1. The undersigned respectfully requests to purchase the following equipment through The Information Technology Bureau using an existing DOITT contract:

- (2) SPOT Enterprise Packages
- (2) SPOT Battery
- (2) SPOT Arm
- (2) SPOT Cam+ IR
- (2) Boston Dynamics Spot CARE w/Arm
- (2) Boston Dynamics Spot Core
- (2) FLYMOTION Ridgeback System w/ Starter Kit
- (2) FLYMOTION Tactical Lighting System for UGV
- (2) Boston Dynamics Spot core I/O
- (1) Muve C360 Spot 8-Gas Detection Sensor
- (1) Spot Muve C360 Integration Updates and Maintenance
- (1) UTAC 5 Day Spot Training (Client Location)
- (1) Leica BLK ARC Starter Pack
- (4) FM Technical Support Quarterly
- (2) FM Custom Wrap
- (2) FM Assembly (SPOT)
- (1) DOITT Contract (10%)
- (2) Shipping

2. This purchase will be under budget code 2209 and object code 300 for a total cost of \$754,029.10.

3. For further information regarding this request, please contact the Technical Assistance Response Units' Fiscal Officer Sergeant Nicholas Gravino at (718) 971-1418.

4. For your **CONSIDERATION**.

  
Frank DiGiacomo  
Inspector



**FLYMOTION**

**FLYMOTION**  
800-548-5844  
4416 Eagle Falls Pl.  
Tampa, Florida  
33619-9611  
United States

Prepared For  
Matthew Andrews-Sales  
NYPD Technical Assistance  
Response Unit  
1 Police Plaza Path  
New York, New York  
10007  
United States

Estimate Date  
01/12/2023

Estimate Number  
108056

Description	Rate	Qty	Line Total
<b>SPOT Enterprise Package</b> <ul style="list-style-type: none"><li>• Base platform: Spot with the current software release</li><li>• Spot battery (qty 2)</li><li>• Spot battery charger (power loader) with cables</li><li>• JXD tablet controller with the then current software release</li><li>• Micro-USB charger for JXD tablet</li><li>• Storage and transportation case for Spot and accessories</li></ul>	\$99,200.00	2	\$198,400.00
<b>Spot Battery</b> <ul style="list-style-type: none"><li>• Spot Battery x 1</li></ul>	\$5,700.00	2	\$11,400.00
<b>Spot Arm</b> <ul style="list-style-type: none"><li>• Equipped to operate through both semi-autonomous actions and tele-manipulation, the arm will open doors, pick, place, push, or drag objects, and adapt to new situations at the push of a button or swipe of a screen.</li></ul>	\$64,000.00	2	\$128,000.00
<b>Spot Cam+ IR</b> <ul style="list-style-type: none"><li>• The Spot CAM+IR payload turns Spot into a powerful inspection tool with purpose-built cameras and turnkey integration. Spot CAM+IR features a color ring camera with a 360° f field of view for complete situational awareness while remotely operating the robot, a pan tilt-zoom (PTZ) color camera for detailed inspections from a distance, and an integrated radiometric thermal camera to detect issue-indicating hot spots. Integrated high-sensitivity microphones and amplified speakers enable remote auditory inspections and two-way communication with operators in the field.</li></ul>	\$38,950.00	2	\$77,900.00
<b>Boston Dynamics Spot CARE w/ Arm</b> Spot CARE Service Plan Included:	\$24,800.00	2	\$49,600.00

- 100% coverage on your Spot robot for 12 months, after the standard warranty expires
- Unlimited repairs\*
- Unlimited replacement\*
- Repair or replacement time: <10 business days
- Includes Arm

\*Subject to our Terms and Conditions of Sale

<b>Boston Dynamics Spot Core</b> Spot Core Included: • 3x USB 3.0 • 2x USB 2.0 • HDMI • Ethernet • RS232 Serial • 2x DisplayPort • CPU • Mounting kit • Shielded ribbon cable (225 mm)	\$3,925.00	2	\$7,850.00
<b>FLYMOTION Ridgeback System w/ Starter Kit</b> Starter Kit includes: • 1 x FLYMOTION Ridgeback (S-Band) • 1 x Ridgeback Kit for SPOT (Chassis, batteries, antennas, cables) • 1 x Radio for Operator (Chassis, batteries, antennas, cables) • 1 x Controller • 1 x Android Tablet • 1 x Juggernaut Case & Mount	\$37,979.00	2	\$75,958.00
<b>FLYMOTION Tactical Lightning System for UGV</b> • Picatinny Rail Adapter • Illumination Kit	\$1,500.00	2	\$3,000.00
<b>Boston Dynamics Spot core I/O</b> Boston Dynamics Spot core I/O	\$6,650.00	2	\$13,300.00
<b>Muve C360 Spot 8-Gas Detection Sensor</b> Multi-gas detector designed for integration into the Boston Dynamics SPOT platform with calibration station. Includes: MUVE C360 multi-gas detector, integration dock and electrical connections for Boston Dynamics SPOT platform, dock mounting hardware, spare parts kit, Quick Start Guide, and rugged case. MUVE C360 Calibration Station includes tubing, filters, and connectors shipped in a separate box. Spot integration API. Note: The Spot system must be using firmware that supports SDK Extension (currently 3.2 and above). Spot Core or Core I/O is required for installation.	\$19,250.00	1	\$19,250.00
<b>Spot Muve C360 Integration Updates and Maintenance</b> (includes updated API code and installation as Spot SDK Extension firmware is upgraded) *Annual Cost	\$3,500.00	1	\$3,500.00
<b>UTAC 5 Day Spot Training (Client Location)</b> Unmanned Tactical Application Course: • *UGV Familiarization + Implementation* • Up to 6 students • Each additional student is \$999 • This is a custom tailored training for the end-user involving all UGV	\$15,485.00	1	\$15,485.00

hardware and software used by the end-user. Trainees will learn to use both hardware and any accompanying software to complete missions necessary to the end-users success.

<b>Leica BLK ARC Starter Pack</b> • BLK ARC is an autonomous laser scanning module for robots. It can be integrated with robotic carriers to enable autonomous mobile laser scanning. •1 yr BLK ARC Laser Scanner CCP Blue,consisting of: •1 yr HW Maintenance, •1 yr Customer Support	\$55,838.00	1	\$55,838.00
<b>FM Technical Support Quarterly</b> 24/7 Quarterly Technical Support Agreement (Support agreement details to be sent via your FLYMOTION Account Manager). *Quote reflects annual billing for Tech support.	\$2,500.00	4	\$10,000.00
<b>FM Custom Wrap</b> • Receive a customizable wrap displaying your departments colors, crest, and theme.	\$2,000.00	2	\$4,000.00
<b>FM Assembly (Spot)</b> • Assembly, Firmware Update, and Calibration by FLYMOTION Drone Experts	\$1,000.00	2	\$2,000.00
<b>Shipping</b> • Ground Shipping (Insured)	\$5,000.00	2	\$10,000.00
<b>DOITT Contract (10%)</b>	\$68,548.10	1	\$68,548.10
<b>Subtotal</b>			<b>754,029.10</b>
<b>Tax</b>			<b>0.00</b>
<b>Estimate Total (USD)</b>			<b>\$754,029.10</b>


#### Terms

- Payment due upon receipt (unless other terms have been agreed upon).
- Pricing valid for 14 days from the date issued.
- 3% Convenience charge on orders more than 2500.00 for credit card processing.
- Send orders to [sales@flymotionus.com](mailto:sales@flymotionus.com).
- Lead time will be confirmed upon receipt of a valid PO.
- Please inquire about our Training Classes.

DCMB #115-22-0029  
PC #2022-12350  
OCD #2022-5322  
TARU #2022-057  
TARU #22-064

**FOURTH ENDORSEMENT**

Deputy Commissioner, Management and Budget to Chief of Department, January 12, 2023. Contents noted. Your request for funding for two (2) robot dogs has been approved and \$733,693 is available under Budget Code 2209, Object Code 300. TARU should submit all procurement paperwork to Information Technology Bureau Fiscal Affairs to begin processing. Forwarded for your information and necessary attention.

  
Kristine Ryan  
Deputy Commissioner  
Management and Budget

KMR:bm

cc: Police Commissioner's Office  
DCPI  
AC, BMD  
CO, Acquisitions Management Division  
CO, Information Technology Bureau  
Exec. Dir., BAAS  
Dir., MBAU

**POLICE DEPARTMENT  
CITY OF NEW YORK**

December 26, 2022


**From:** Commanding Officer, Technical Assistance Response Unit  
**To:** Chief of Department  
**Subject:** **NEW INDUSTRIAL ROBOT DEPLOYMENT**

1. The NYPD Technical Assistance Response Unit is looking to acquire an Industrial grade robot manufactured by Boston Dynamics known as "Spot". This equipment would be an invaluable addition to TARU's already established fleet of robotics and drones. Spot will give TARU the capability to enter a "hot zone" remotely from a further distance with the ability to effortlessly climb up and down stairs as well open doors and move/grasp objects. Along with its numerous cameras and two-way communication, the robot is able to hold a payload of up to 30 lbs. allowing equipment to be deployed down range, in to hazardous environments. This could include CBRN equipment that can scan and detect hazardous material, in the aftermath of a potential terrorist attacks. This robot would significantly increase TARU's ability to achieve its mission of delivering immediate emergency technical assistance at critical incidents such as hostage and barricade situations.

2. The Technical Assistance Response unit conducted a pilot program in October of 2020 with a leased Boston Dynamics Spot. This program resulted in positive feedback from E.S.U. personnel and TARU technicians whom deployed the robot multiple times with several success stories. Unfortunately, these deployments were met with some public resistance and ultimately the project was terminated in April of 2021. After procurement but before deployment, in conjunction with Project Management and with the guidance of the Legal Bureau, the robot should be demonstrated before special interest groups whom can relay to the community the robots safe operation and significant lifesaving capabilities. These groups should include but not be limited to the Mayor's Office, The City Council, the ACLU and the City Council Advocates. Next with the assistance of DCPI, there should be a large media release, inviting all the local media outlets for a presentation by TARU. This presentation will consist of a program overview, live exercises and conclude with an open Q&A. The exercise will be conducted to highlight live real life scenarios of the robots every day usages and limitations to ensure a better community understanding of the need for this new technology. When all phases

of the "roll out" have been satisfied TARU has developed an internal operational guide which clearly identifies the procedure to deploy a 4-Legged robot to ensure safe deployments.

3. Submitted for your CONSIDERATION.



Frank DiGiacomo  
Inspector

REPORT UNDER  
OCD #2022-5322  
TARU #2022-057  
PC #2022-12350  
DCMB #115-22-0029

**THIRD ENDORSEMENT**

Chief of Department to Commanding Officer, Technical Assistance Response Unit, December 15, 2022. Contents noted. Please see the attached communication from the Commanding Officer, Police Commissioner's Office regarding the purchase of two robot dogs. Please draft the requested strategy on educating the public, the reason for the purchase, and the intended use of the robots and submit it to my office by Tuesday, December 27, 2022. For your **NECESSARY ATTENTION**.

A handwritten signature in black ink, appearing to read 'Jeffrey B. Maddrey', with a stylized flourish at the end.

Jeffrey B. Maddrey  
**CHIEF OF DEPARTMENT**



**SECOND ENDORSEMENT**

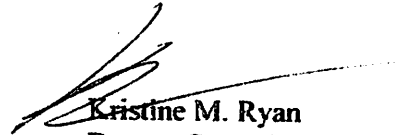
Commanding Officer, Police Commissioner's Office to Chief of Department (*Attn: TARU*), Deputy Commissioner, Public Information and Deputy Commissioner, Management and Budget, December 13, 2022. Contents noted. The Police Commissioner has **APPROVED** the request for the purchase of two (2) industrial grade robot dogs. However, prior to the purchase the Deputy Commissioner, Public Information and Technical Assistance Response Unit is directed to devise a strategy on educating the public on the importance of the industrial grade robot dogs, the reason for the purchase and the intended use of the industrial grade robot dogs by the Department. Forwarded for your necessary attention.

  
Lourdes Soto  
Deputy Chief

LS/jg

**FIRST ENDORSEMENT**

Deputy Commissioner, Management and Budget to the Office of the Police Commissioner, November 14, 2022. Contents noted. My office has received a new needs funding request from the Technical Assistance Response Unit (TARU) in the amount of \$845,178 to purchase two industrial grade robot dogs. In April 2021, the Department had to terminate a contract with the same vendor, Boston Dynamics, for the lease of a similar robot dog. This termination took place following significant public criticism and concern regarding the intended use. Given the sensitive nature and cost of this potential procurement, my office is seeking your review and recommendations before proceeding with the processing of this request.

  
Kristine M. Ryan  
Deputy Commissioner  
Management and Budget

KMR: jf

cc: Chief of Department  
AC, BMD  
ACCO  
ED, BAAS  
Dir, BU

**POLICE DEPARTMENT  
CITY OF NEW YORK**

October 28, 2022

From: Commanding Officer, Technical Assistance Response Unit  
To: Deputy Commissioner, Management and Budget  
Subject: **REQUEST NEW NEEDS FUNDING**

1. The Technical Assistance Response Unit is seeking to make a new purchase for which additional funding is needed. This purchase will assist in TARU operations and ensure that our capabilities are up to date and continue to function with modern technology. The request is as follows:
2. The Technical Assistance Response Unit is requesting new needs funding in the amount of \$845,177.30 be made available in Budget Code 2201. This funding will be used to purchase two Boston Dynamics industrial grade robots. This purchase will be with Flymotion on an existing city contract. This purchase will assist in field operations and help to maintain safety for officers and assist with patrol operations.
3. For further information regarding this request, please contact the Technical Assistance Response Units' Fiscal Officer Sergeant Nicholas Gravino at (718) 971-1418.
4. For your CONSIDERATION.

  
Frank DiGiuseppe  
Inspector